IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Hans-Peter KRAUSS

Serial No.:	10/568,988	Group Art Unit:	3683
Filed:	21 February 2006	Examiner:	SY, MARIANO ONG

For: Pneumatic spring/damper unit, especially for a motor vehicle

Attorney Docket No.: AG012

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Commissioner for Patents
PO Box 1450
Alexandria, Virginia 22313-1450

APPEAL BRIEF

This Brief supports the appeal dated August 4, 2008 to the Board of Patent Appeals and Interferences from the Final Rejection dated February 5, 2008, in the application identified above.

Please apply any charges not covered, or any credits, in connection with the filing of this Brief on Appeal to Deposit Account No. 50-2570.

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REAL PARTY IN INTEREST

The real party in interest is **CONTINENTAL AKTIENGESELLSCHAFT,** the assignee of record.

RELATED APPEALS AND INTERFERENCES

None

STATUS OF CLAIMS

Status of Claims

Claims 1-4 are canceled.

Claims 5 and 6 are currently pending, stand rejected and are the subject of the instant appeal.

Claims 7 and 8 are canceled.

STATUS OF AMENDMENTS

An after-final amendment, correcting claim status identifiers and filed on May 5, 2008, was not entered.

SUMMARY OF CLAIMED SUBJECT MATTER

Claim 5:

A pneumatic spring/damper unit has a cylinder housing (1) and a double-acting separator piston (6) which is fitted into the cylinder housing (1). A piston rod (7) projects out of the cylinder housing (1). The cylinder housing (1) and the piston rod (7) are each attached to a respective one of two movable components (via 3, 11), and the separator piston (6) divides the interior of the cylinder housing (1) into a first damper space (9) and a second damper space (10). The first damper space (9) decreases in size during compression, and the second damper space (10) increases in size during compression. A rolling bellows (14) is fastened to the projecting piston rod (7) with one end and to the cylinder housing (1) with its other end. The rolling bellows (14) forms a spring space (17) which decreases in size during compression. The spring space (17) and the first damper space (9), which both decrease in size during compression, are combined through ducts in the piston rod (7) into a common spring/damper space (9, 17). This common spring/damper space (9, 17) and the second damper space (10), which increases in size during compression, are connected through overflow throttles (21, 22).

The overflow throttles (21, 22) are arranged in the cylinder housing (1) between the second damper space (10) which increases in size during compression and the spring space (17) which decreases in size during compression.

All elements are shown in Figure 1 and described in paragraphs [0021], [0022], and [0023] of the specification.

GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

1. Whether Claims 5 and 6 are unpatentable under 35 U.S.C. 103(a) as being obvious over U.S. Pat. No. 4,742,996 (Gold) in view of Published U.S. Patent Applicaation No. 2004/0130079 (Gold et al.) and in view of U.S. Pat. No. 4,154,434 (Wallis).

ARGUMENT

Ad 1. Claim Rejections - 35 USC - § 103

Claims 5 and 6 stand rejected under 35 U.S.C. 103(a) as being obvious over U.S. Pat. No. 4,742,996 (Gold) in view of Published U.S. Patent Applicaation No. 2004/0130079 (Gold et al.) and in view of U.S. Pat. No. 4,154,434 (Wallis).

The Examiner asserts that it would have been obvious to one of ordinary skill in the art to modify the sprin/damper unit of Gold with the known ducts as taught by Gold et al. and with overflow throttles arranged in the cylinder housing between the second damper space and the spring space, as taught by Wallice, in order to minimize shocks and vibrations to the body of the vehicle.

None of the references, not even Wallis, teaches to arrange throttles between the spring space and the second damper space.

Wallis's passageways 62 are not throttles, as explained in Applicant's response of November 29, 2007, replying to the non-final Office Action dated August 29, 2007:

The openings bearing reference numeral 62 are called "passageways" in the Wallis document. They are further described as establishing a **free communication** between the interior of boot 56 and the upper end of cylinder 16 (see **Wallis**, **column 2, lines 26-28**). Such a free connection does not exist in the present invention but between the spring space 17 and the first damping space 9. The only "throttling" effect in the Wallis patent is seen along the periphery of piston 36, whose reciprocating movement may result in gas "seeping" from chamber 78, corresponding to the first damping space 9 of the present invention, into chamber 80, corresponding to the second damping space 10 of the present invention (see column 3, lines 2-6).

In the amendment after final, applicant further explained that the other two references do not show a throttle in the claimed position, either:

Thus Wallis teaches only to throttle a connection between the first and the

second damper space, just as the other two references do: Gold provides for throttles 28 and 30 between the first damper space 24 and the second damper space 26. Gold et al provides damping orifices 9 through the piston 5 between the first damper space 8 and the second damper space 7 (see paragraph [0020]). Combining Gold, Wallace, and Gold et al. would invariably provide throttles in (or around the periphery of) piston 6 of the present invention, i.e. between first damper space 9 and second damper space 10.

On the other hand, all three references provide that the spring space is either connected to the first damper space through an opening providing flow resistence (Gold et al., paragraph [0026]) or that it is freely connected to the second damper space (Wallis: openings 62, Gold: chamber 26 and bellows 18).

None of the prior art documents provides for a throttled connection between the second damper space and the spring space. Thus a combination of those documents, which way ever, cannot result in the limitations of Claim 5. The Examiner has not provided any evidence that such a throttle is known in the prior art at all, and thus the rejection is believed to be improper.

In the Advisory Action, the examiner asserts that the term "overflow throttle" is a broad term and can be a simple bore.

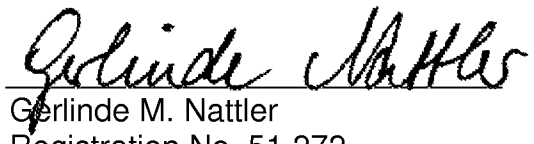
However, the Examiner fails to acknowledge that a throttle throttles, i.e. restricts the flow of a medium, by the very meaning of the word. A free-flowing connection is not a throttle. That the term "throttle" as used in the application has ist ordinary meaning becomes clear from the last sentence of paragraph [0025] of the specification, which describes the function of the spring/damper unit. This passage states that "damping forces are generated at the overflow throttles 21, 22, which damping forces oppose the compressing movement of the separator piston 6." A free-flowing communication in place of those throttles would not be able to generate such a damping force.

Accordingly, the prior art does not show or even suggest the limitation that overflow throttles are arranged between the second dampter space (10) and the

spring space (17). Applicant believes that Claim 5 is patentable over the prior art.

Claim 6 stands and falls with Claim 5. Claim 6 depends on Claim 5 and includes all of the Claim-5 limitations. Thus, Claim 6 is believed to be non-obvious over the cited prior art as well.

Respectfully submitted,



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CLAIMS APPENDIX

5. (Rejected) A pneumatic spring/damper unit, comprising a cylinder housing (1) and a double-acting separator piston (6) which is fitted into the cylinder housing (1) and having a piston rod (7) which projects out of the cylinder housing (1), the cylinder housing (1) and the piston rod (7) each being attached to a respective one of two moveable components and the separator piston (6) dividing the interior of the cylinder housing (1) into a first damper space (9) which decreases in size during compression and a second damper space (10) which increases in size during compression, and a rolling bellows (14) being fastened in between the projecting piston rod (7) and the cylinder housing (1), said rolling bellows (14) forming a spring space (17) which decreases in size during compression, the spring space (17) and the first damper space (9) being combined by means of ducts in the piston rod (7) into a common spring/damper space (9, 17), and the common spring/damper space (9, 17) and the second damper space (10) being connected by means of overflow throttles (21, 22),
wherein the overflow throttles (21, 22) are arranged in the cylinder housing (1) between the second damper space (10) which increases in size during compression and the spring space (17) which decreases in size during compression.

6. (Rejected) The pneumatic spring/damper unit as claimed in Claim 5, wherein the cylinder housing (1) has an open connecting duct (23) in the region between the second damper space (10) and the spring space (17), and the overflow throttles (21, 22) are arranged in a valve insert (20) which is fixedly located in the cylinder housing (1).

EVIDENCE APPENDIX

-NONE-

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RELATED PROCEEDINGS APPENDIX

-NONE-